

said inlet channel being bounded on one side by a substantially axially disposed blocking wall,

said inlet channel being flowingly connected to a substantially axially disposed first cross-axial pump and flowingly connected to a non-adjacent downstream channel, wherein said flowing connection between the inlet channel and the non-adjacent downstream channel is a direct connection free of a flowing connection to the first cross-axial pump;

said first cross-axial pump being flowingly connected to a first downstream channel,

said first downstream channel being bounded by a blocking wall on an upstream side of said first downstream channel,

said first downstream channel being flowingly connected to a second cross-axial pump,

said second cross-axial pump being flowingly connected to a second adjacent downstream channel,

said second adjacent downstream channel being bounded by a blocking wall on an upstream side and a downstream axial side of said second adjacent channel,

and wherein said mixing section delivers the resulting plastified mixture to an output.

35. (New) An extruder mixer for plastified material comprising a rotatable elongated screw and means for rotating said screw, said screw having a mixing section adapted to mix plastified materials by elongational dispersion, said mixing section having an upstream inlet channel flowingly connected adjacent to one side of a downstream cross-axial pump, the upstream inlet channel constructed and arranged to directly flow into a non-adjacent channel located downstream of said downstream cross-axial pump, whereby the plastified material may flow from the upstream inlet channel directly to the non-adjacent channel without communicating through the downstream cross-axial pump.

Kindly amend claims 2-5, 7-14 and 16-20 as follows:

2. (Amended) The apparatus of Claim 34, wherein the cross-axial pumps are bounded by channels on more than one side.

3. (Twice Amended) The apparatus of Claim 34, wherein an upstream feeder is flowingly connected to cause and to control input feed of mixable materials.

4. (Twice Amended) The apparatus of Claim 34, where a screw channel is provided at the input of said mixer and flowingly connected to control the flow rate mixer input.

5. (Twice Amended) The apparatus of Claim 34, where an output flight is flowingly connected to at least one of the blocking walls of said mixing section.

7. (Amended) The apparatus of Claim 34, wherein the dimensions of said upstream and said downstream channels are substantially the same as each other.

8. (Amended) The apparatus of Claim 34, wherein said extruder screw further comprises a mounting directed in a direction wherein said extruder screw is substantially vertically oriented.

9. (Amended) The apparatus of Claim 34, wherein the dimensions of said upstream and said downstream channels are different from each other.

10. (Amended) The apparatus of Claim 34, wherein the dimensions of said upstream and said downstream cross-axial pumps are the same.

11. (Amended) The apparatus of Claim 34, wherein the dimensions of said upstream and said downstream cross-axial pumps are different from each other.

12. (Amended) The apparatus of Claim 34, wherein said channels are oriented substantially parallel to the screw axis.

13. (Amended) The apparatus of Claim 34, wherein said channels are oriented at an angle to the screw axis.

14. (Amended) The apparatus of Claim 34, wherein at least some of the channels are free of connection to said inlet channel.

16. (Amended) The apparatus of Claim 34, wherein said mixer includes control means for controlling said feed so that said mixer is not starve fed.

17. (Twice Amended) The apparatus of Claim 34, where resistance devices are provided on said screw to force said plastic material into said output.

18. (Amended) The apparatus of Claim 34, wherein there are multiple inlet channels.

19. (Twice Amended) The apparatus of Claim 34, wherein there are multiple flowingly connected inlet flights.

20. (Twice Amended) The apparatus of Claim 34, wherein there are multiple flowingly connected outlet flights.